



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/529,556

03/29/2005

Emeric Daniau

L7307.05108

7933

24257 7590 04/14/2008

STEVENS DAVIS LLP

1615 L STREET NW

SUITE 850

WASHINGTON, DC 20036

EXAMINER

RODRIGUEZ, WILLIAM H

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

04/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,556	Applicant(s) DANIAU, EMERIC	
	Examiner William H. Rodriguez	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 11 is/are rejected.
- 7) ☒ Claim(s) 4,5,7-10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/29/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the first office action in response to the preliminary amendment filed on 03/29/2005.

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). Applicant is reminded of the proper language and format for an abstract of the disclosure (see below). *An abstract on a separate sheet is required.*

The **abstract should be in narrative form** and generally limited to a single paragraph **on a separate sheet within the range of 50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The specification is objected to because *the following titles are missing*: Background of the Invention, Field of the Invention, Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98, Brief Summary of the Invention, Brief Description of the Several Views of the Drawing(s) and Detailed Description of the Invention. Correction is required.

Claim Objections

3. Claims 1, 4 and 5 are objected to because of the following informalities:

4. In claim 1 line 12, the recitation "said tube" is presumed to be --said flame tube-- for proper clarity and antecedent basis. Appropriate correction is required.

Art Unit: 3746

5. In claim 1 line 12, the recitation “this opening” is presumed to be --said supply opening-- for proper clarity and antecedent basis. Appropriate correction is required.
6. In claim 4 lines 2-3, the recitation “wherein said transverse movable base takes the form of a piston” is presumed to be --wherein said transverse movable base is a piston-- for proper clarity. Appropriate correction is required.
7. In claim 4 line 4, the recitation “the wall” is presumed to be --the lateral wall-- for proper clarity and antecedent basis. Appropriate correction is required.
8. In claim 5 line 5, the recitation “with locking are housings” is presumed to be --with locking housings-- for proper clarity and antecedent basis (see line 10 of claim 5). Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
11. Claim 1 recites the limitation "the combustion chamber" in line 2. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.
12. Claim 1 recites the limitation "the lateral wall" in line 12. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Art Unit: 3746

13. Claim 1 recites the word "it" in line 6. It is unclear to what structural element this recitation/word is referring back to (i.e., the combustion chamber, the combustible charge, the flame tube, the transverse base, the supply device, etc). Appropriate correction is required.

14. Regarding claim 1, the phrase "*can*" in line 6 renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are in fact performed by the invention, and are part of the invention or if such recitation is just a possible result that may or may not happen. Appropriate correction is required (i.e., --moves-- instead of "can move").

15. Claim 1 recites the word "the latter" in lines 6 and 14. It is unclear to what structural element this recitation/word is referring back to (i.e., the combustion chamber, the combustible charge, the flame tube, the transverse base, the supply device, etc). Appropriate correction is required.

16. Claim 12 recites the limitation "the primed position" in line 5. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

17. Claim 12 recites the limitation "the percussion position" in lines 6 and 9. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3746

19. Claims 1-3, 6 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Meholic (2002/0139106).

Meholic (particularly figures 1-3) teaches a pulse detonation engine comprising: a combustion chamber 14 having a movable transverse wall 34, said movable wall translating between a first position (figure 2) and a second position (figure 1), in said second position the movable wall allows a combustible charge to be injected into the combustion chamber, said combustible charge is injected through an lateral opening 56 of the combustion chamber, in said first position the movable wall blocks the opening and detonation of the combustible charge takes place, releasable locking means (54, 48, 46, 52) for locking said movable wall 34 in said first position or said second position, an internal stopper (stopper connecting with surface 38), wherein said movable wall rotates/slides* with respect to said combustion chamber between said first and second positions, and an ignition device 24 for igniting the combustible charge.

*According to the Merriam Webster's Collegiate Dictionary, the definition of "slides" is to move smoothly along a surface. Meholic's movable wall 34 moves along the circumferential surface of the combustion chamber. Therefore, based on this dictionary definition, Meholic's movable wall 34 slides with respect to the combustion chamber.

Allowable Subject Matter

20. Claims 4, 5, 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

21. Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodríguez whose telephone number is 571-272-4831. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Rodríguez/
Primary Examiner, Art Unit 3746